DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/Ala Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-007187
Date Inspected: 24-May-2009

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 1845
OSM Departure Time: 645
Location: Shanghai, China

CWI Name: Xu Le Feng, Wan Wen Zhong

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Tower and OBG Components

Summary of Items Observed:
On this date Caltrans OSM Quality Assurance (QA) Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

Trial Assembly Area

This QA Inspector, George Goulet, randomly observed the following work in progress at the Trial Assembly Area: Fitting and match-drilling of 24mm through lap plates into the flanges and webs of longitudinal stiffeners of bottom plates and side plates of OBG section 5AE after pinning and bolting the other ends of the lap plates across the seam to existing holes in the corresponding members of OBG section 4BE. The drillers appeared to be using water to lubricate and cool the drill during operation. Temporary bolts were used to hold the lap plates in place, during and after the drilling operation.

Bay 11
This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 11:

SMAW fitting and tack welding of weld joint WSD1-FASA4-2A/E-4A located on PCMK west tower, lift 4, skin A. Welders were identified as 041271, 040690. ZPMC QC was identified as CWI Xu Le Feng (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Wang Jiang Hua. The welding variables recorded by QC1 and his assistant appeared to comply with WPS-B-T-4211-B-U3b-2. This QA Inspector, George Goulet, obtained amp readings for both welders and observed the amps to be at 260 for welder 041271. Maximum amperage for 5.0mm filler metal rod being used

was 240 amps. This QA Inspector, George Goulet, notified QC Inspector Wang Jiang Hua of the out of compliance amperage reading. QC Inspector Wang Jiang Hua verified the above noted reading with his own ampmeter. Welder 041271 adjusted the amperage to 235 and resumed welding. QC Inspector Wang Jiang Hua told this QA Inspector, George Goulet, that he would monitor the welding parameters more closely in the future. SAW welding of weld joint ESD1-FCSA4-2A/C-3 located on PCMK east tower, lift 4, skin C. Welder was identified as 040634. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Wang Jiang Hua. The welding variables recorded by QC1 and his assistant appeared to comply with WPS-B-T-2221-B-U3c-S-2.

Bay 10
This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 10:

SMAW welding of weld joint SSD1-FBSA4-1A/C-82A located on PCMK south tower, lift 4, skin B. Welder was identified as 050038. ZPMC QC was identified as CWI Wan Wen Zhong (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Wang Hao. The welding variables recorded by QC1 and his assistant appeared to comply with WPS-B-T-4211-B-U3b-2. This QA Inspector, George Goulet, obtained amp readings for both welders and observed the amps to be at 250. Maximum amperage for 5.0mm filler metal rod being used was 240 amps. This QA Inspector, George Goulet, notified QC Inspector Wang Hao of the out of compliance amperage reading. QC Inspector Wang Hao verified the above noted reading with his own ampmeter. Welder 050038 adjusted the amperage to 240 and resumed welding. QC Inspector Wang Hao told this QA Inspector, George Goulet, that he would monitor the welding parameters more closely in the future.

SMAW fitting and tack welding of weld joints NSD1-FBSA4-1A/C-31, 34A located on PCMK south tower, lift 4, skin B. Welder was identified as 040324. ZPMC QC was identified as CWI Wan Wen Zhong (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Wang Hao. The welding variables recorded by QC2 and his assistant appeared to comply with WPS-B-T-2211-B-U3b.

SMAW fitting and tack welding of weld joint NSD1-FBSA4-1A/C-26 located on PCMK south tower, lift 4, skin B.

Welder was identified as 205524. ZPMC QC was identified as CWI Wan Wen Zhong (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Wang Hao. The welding variables recorded by QC2 and his assistant appeared to comply with WPS-B-T-2211-B-U3b.

SAW welding of weld joint NSD1-A166E/J-32A located on PCMK north tower shaft, lift 1, skins B to C. Welder was identified as 207746. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2221-C-U2b-S-2.

SAW welding of weld joint NSD1-A166E/J-52B located on PCMK north tower shaft, lift 1, skins A to B. Welder was identified as 207745. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2221-C-U2b-S-2.

SAW welding of weld joint NSD1-A112B/H-3B located on PCMK north tower shaft, lift 1, skins B to C. Welder

was identified as 040252. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2221-C-U2b-S-2.

SAW welding of weld joint NSD1-A112B/H-3B located on PCMK north tower shaft, lift 1, skins A to B. Welder was identified as 050295. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2221-C-U2b-S-2.

SAW welding of weld joint NSD1-A112B/H-32A located on PCMK north tower shaft, lift 1, skins B to C. Welder was identified as 503060. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2221-C-U2b-S-2.

SAW welding of weld joint NSD1-A112B/H-3B located on PCMK north tower shaft, lift 1, skins B to C. Welder was identified as 051413. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2221-C-U2b-S-2. Also at this location and appearing to be monitoring the welding was ABF Representative Zhang Qin Jian.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

As noted above, and this QA Inspector, George Goulet, asked each QC if all the welding variables observed by him appeared to comply with the appropriate WPS, including the preheat requirements according to thickness of the thickest member being welded. Each QC showed this QA Inspector, George Goulet, that he was carrying the proper temperature sticks to monitor the minimum and maximum preheat and interpass temperatures and replied that all he observed did appear to comply.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod, 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer